MC0254

HOSPITAL EQUIPMENT NOTE

BOILER HOUSE AND STEAM BOILER PLANT

16

MINISTRY OF HEALTH : SCOTTISH HOME AND HEALTH DEPARTMENT
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Boiler House and Steam Boiler Plant

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I. Scope

This Equipment Note gives guidance on the basic equipment requirements for a Boiler House and Steam Boiler Plant. It is intended to be read in conjunction with Hospital Building Note No. 16 which relates to the design and planning of Boiler Houses and Steam Boiler Plants at hospitals. Guidance on the main installations, i.e. boilers, calorifiers and associated plant, main switch gear, stand-by electricity generator, etc., is given in Hospital Building Note No. 16 (Boiler House and Steam Boiler Plant) and Hospital Technical Memorandum No. 5 (Steam Boiler Plant Instrumentation) and is therefore excluded from the scope of this Note.

II. General Considerations on the Use of Equipment Notes

Equipment Note No. 1 (Equipping a hospital building) provides an introduction to the series of departmental Equipment Notes, advice on their application and guidance on the task of preparing equipment schedules for individual building projects. This departmental Equipment Note is intended to be used within the general planning framework set out in Equipment Note No. 1 and in the manner described therein.

The following method of classifying equipment, which is explained in more detail in Hospital Equipment Note No. 1, is used throughout this Note:

The term " equipment " covers all items necessary for the functioning of the hospital and includes both non-technical (e.g. furniture) and technical equipment. Short-term consumable supplies such as fuel, stationery, food, drugs and dressings are not included.

Equipment is classified into three groups:

Group I: items usually supplied and fixed by the contractor for the works.

Group II: items having a permanent or semi-permanent location and having a significant effect on space and/or structural requirements:

(*a*) those supplied by the hospital authority and fixed by the contractor for the works;

(*b*) those supplied by the hospital authority and put in position by them or on their instructions outside the general construction contract.

Group III: smaller items, usually storage items, supplied and put in position by the hospital authority.

III. Special Considerations in Respect of this Note

The equipment detailed in this Note is regarded as generally suitable for the department described in Building Note No. 16 and has been listed where applicable in room sequence conforming to the Building Note. As mentioned in Section I above, in view of the specialist nature of the plant generally, and the guidance already given in Hospital Building Note No. 16 and Hospital Technical Memorandum No. 5, the main installation items have not been included under Group I. Similarly, the appropriate tools required for the running and maintenance of the boiler house plant and equipment, i.e. furnace cleaning tools and spanners, etc., which should be supplied with the main plant and equipment, have not been included in the Note.

Other fixed items have been included: some of them have already been mentioned (and costed) in the Building Note, but it has been thought useful to include them again in the Equipment Note.

Structural elements, floor coverings, non-specialised heating and lighting fittings and similar items which are basic to any building are not included in the Equipment Note. Although the lists are generally designed to meet the needs whatever the type of installation, some adjustment will be required in applying them to individual schemes, and not all items will be needed in every case, particularly for example for an oil-fired installation.

IV. Cost

Guidance on the cost of equipping a boiler house and steam boiler plant to the standard shown in this schedule is given for each room where there is Group II and Group III equipment. A departmental cost summary is shown in the Appendix to the Note. In using these cost figures, the considerations referred to in Section IV of Equipment Note No. 1 should be borne in mind.

The cost figures in this schedule and in the Appendix are related only to Group II and Group III equipment. As a matter of convenience, some Group I items are listed in each room schedule, but these have already been taken into account in the cost allowance for construction (including engineering), in the appropriate Cost Note in Appendix E to Hospital Building Note No. 2.

V. List of Rooms, etc.

A. Basic Accommodation	Page reference
(*a*) Boiler room	3
(*b*) Fuel store	3
(*c*) Ash dump	4
(*d*) Chimney	4
(*e*) Switch room	4
(*f*) Mess room	4
(*g*) Staff lockers and lavatories	5
(*h*) Stand-by electricity generator for boiler plant	5
Departmental items	5
B. Additional Accommodation	
(*a*) Calorifier room	6
(*b*) Feed water treatment room	6
(*c*) Chemical store	6

VI. Schedule of Equipment

A. Basic Accommodation

(*a*) BOILER ROOM

		Quantity	*Notes*
Basic List			
Group I:	Board, notice	1	
	Blackboard	1	
	Clock, electric	1	
	Storage, rack	As required	For essential tools (blow down key, valve wrenches etc.)
	Storage, cupboard	30–50 cu. ft.	For cleaning materials, essential spares (gauge glasses, gland packings, etc.) and testing sets.
	Storage, stand	As required	For containers for water treatment chemicals. This would be located in Feed Water Treatment Room if one were provided (see Additional Accommodation).
	Socket outlet, extra low voltage	2	
	Socket outlet, twin	2	
	Telephone	1	With loud bell and acoustic hood.
	Water tap with hose connection	1	
	Mirror, chimney viewing	1	If required, adjacent to Boiler Room.
Group IIa:	Dispenser, barrier cream	1	
Group IIb:	Cabinet or stand, lubricating	1	With oil tanks, semi-rotary hand pump, two oil cans, two oil jugs, drip trays, etc.
	Table, high	1	With drawers for plant log sheets.
	Stool, laboratory type	1	
	Bench, fitter's	1	With vice (see Group III).
	Hose and reel	1	For washing down.
	Ladder, step, metal, 8ft.	1	
	Wheelbarrow, steel	3	For coal-firing plant. Numbers may vary with number of boilers.
	Truck, sack	1	
Group III:	Bin, waste	1	
	Bucket	3	
	Bucket, mop	1	
	Broom, soft	3	
	Broom, hard	3	
	Brush, hand, soft	2	
	Cabinet, water testing	1	Complete with testing equipment. This would be located in Feed Water Treatment Room if one were provided (see Additional Accommodation).
	Drip trays	As required	
	Dust pan	1	
	Grease gun	2	One high pressure and one low pressure.
	Hydrometer	1	If not included in test cabinet.
	Squeegee	1	
	Tray	2	For oil burner cleaning.
	Vacuum cleaner, industrial	1	With accessories for boiler and general cleaning.
	Measure	As required	For dispensing chemicals.
	Mop	1	
	Gas analysis apparatus	1	
	Shovel	4	For coal-fired plant. Number may vary with number of boilers.
	Vice	1	
	Cost Guide (excluding Group I)	£340	

		Quantity	**Cost Guide** (additional list)
Additional List			
Group IIb:	Ladder, long, 15–20 ft.	1	£12
Group III:	Tube cleaning equipment, with accessories	1	£100

(*b*) FUEL STORE

		Quantity	*Notes*
Basic List			
Group I:	Socket outlet, extra low voltage	1	For oil-fired installations only.
Group III:	Drip trays	As required	For use under oil delivery connections.
	Cost Guide (excluding Group I)	£5	

(*c*) ASH DUMP

		Quantity	*Notes*
Basic List			
Group I:	Hose stowage	As required	Adjacent to water tap.
	Water tap with hose connection	1	
Group III:	Hose, with spray attachment and reel	1	
	Cost Guide (excluding Group I)	£5	

(*d*) CHIMNEY

		Quantity	*Notes*
Basic List			
Group IIb:	Special barrow and bins	1	May be required where a grit arrestor is installed.
	Cost Guide (excluding Group I)	£8	

(*e*) SWITCH ROOM

		Quantity	*Notes*
Basic List			
Group I:	Socket outlet, single	1	
	Socket outlet, extra low voltage	1	
Group III:	Rubber mat, insulating	1	In front of switches.
	Cost Guide (excluding Group I)	£20	

(*f*) MESS ROOM

		Quantity	*Notes*
Basic List			
Group I:	Sink unit, with drainer and storage cupboard	1	
	Cooker, small	1	
	Bell, telephone	1	In parallel with loud bell in Boiler Room.
	Board, notice	1	For displaying list of duties.
	Clock	1	When Boiler Room clock is not visible.
	Hook, clothes	4	
	Socket outlet, twin	1	
Group IIa:	Box, first-aid	1	
Group IIb:	Table	1	
	Chair, upright, small	3	
Group III:	Ash tray	1	
	Bin, waste	1	
	Kettle, electric	1	
	Saucepan	1	
	Frying pan	1	
	Mat, door	1	
	Cost Guide (excluding Group I)	£25	

(*g*) STAFF LOCKERS AND LAVATORIES

		Quantity	*Notes*
Basic List			
For W.C. cubicle			
Group I:	W.C. suite	1	
	Toilet paper fitting	1	
	Hook, clothes	1	
Group III:	Brush, lavatory, and holder	1	
For cloakroom			
Group I:	Basin, lavatory	1	
	Mirror	1	
	Shelf	1	
	Urinal	1	
	Hook, clothes	1	
Group IIa:	Dispenser, towel	1	
Group IIb:	Bin, disposal, for paper towels	1	
	Locker, clothes	1	For each member of Boiler House staff.
For shower area			
Group I:	Shower fitment	1	
	Soap rack or holder	1	
	Hook, clothes	2	
	Seat, bench	1	
	Fitment, curtain	1	
Group III:	Curtain, shower	As required	
	Cost Guide (excluding Group I)	£20	

(*h*) STAND-BY ELECTRICITY GENERATOR FOR BOILER PLANT

		Quantity	*Notes*
Basic List			
Group I:	Socket outlet, twin	1	
	Socket outlet, extra low voltage	1	
	Storage, rack or cupboard	As required	For tools and spares, e.g. belts.
Group III:	Lantern, hand, battery operated	1	
	Cost Guide (excluding Group I)	£1	

DEPARTMENTAL ITEMS

		Quantity	*Notes*
Basic List			
Group I:	Directional signs, door labelling/numbering	As required	
	Fire alarms	As required	
	Frame, diagram, glass-fronted	As required	For diagrammatic layouts.
Group IIa:	First aid fire-fighting equipment (e.g. extinguishers, sand buckets, etc.)	As required	See British Standard Codes of Practice and Ministry of Health Memorandum on Hospital Fire Precautions.
Group III:	Protective clothing, including overalls, goggles, asbestos gloves, p.v.c. gloves, etc.	As required	
	Chartboard	6	
	Lantern, hand, battery operated	2	
	Lamp, inspection, hand, extra low voltage	1	
			NOTE: Lifting tackle, which may be required within the Department, is regarded as an Engineers' Stores item.
	Cost Guide (excluding Group I)	£55	For solid fuel installation.
		£75	For oil-fired installation.

B. Additional Accommodation

(*a*) CALORIFIER ROOM

		Quantity	*Notes*
Basic List			
Group I:	Socket outlet, twin	1	
	Socket outlet, extra low voltage	1	
	Cost Guide (excluding Group I)	£—	

(*b*) FEED WATER TREATMENT ROOM

		Quantity	*Notes*
Basic List			
Group I:	Worktop, with cupboards under	1	
	Storage, stand	As required	For containers of water treatment chemicals.
Group IIb:	Cabinet, water testing	1	Complete with testing equipment.
	Stool, laboratory type	1	
	Cost Guide (excluding Group I)	£39	

(*c*) CHEMICAL STORE

		Quantity	*Notes*
Basic List			
Group I:	Storage, racking	As required	
	Cost Guide (excluding Group I)	£—	

Boiler House and Steam Boiler Plant

DEPARTMENTAL COST SUMMARY
(To be read in conjunction with the explanatory notes in Section IV of this Equipment Note and Section IV of Hospital Equipment Note No. 1)

The room cost guide figures for basic equipment (Groups II and III) applied to standard schedules of basic accommodation, suggest a departmental equipment cost total of £500, though this will be subject to adjustment in cases where not all the items listed are applicable—see Section III above.

In this total no account is taken of:

(*a*) Equipment required for basic accommodation additional to the basic list, some guidance on which is given under the appropriate rooms.

(*b*) Equipment required in "additional accommodation", cost guides for which are shown on the appropriate pages.

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